CLAIM

1. An internal combustion engine variable compression ratio system comprising a piston inner (5a) connected to a connecting rod (7) via a piston pin (6), a piston outer (5b) that, while being fitted around the outer periphery of the piston inner (5a) so that the piston outer (5b) can slide only in the axial direction and having an outer end face facing a combustion chamber (4a), is capable of moving to a low compression ratio position (L) close to the piston inner (5a), a high compression ratio position (H) close to the combustion chamber (4a), and at least one medium compression ratio position (M) between the low compression ratio position (L) and the high compression ratio position (H), and at least two sets of raising means (R_1, R_2) disposed in line in the axial direction between the piston inner (5a) and the piston outer (5b), each set of raising means (R_1, R_2) comprising a movable raising member (14_1, 14_2), the movable raising members (14_1, 14_2) being individually capable of pivoting between a non-raised position (A) and a raised position (B) around the axis of the piston inner and outer (5a, 5b), the piston outer (5b) being held at the low compression ratio position (L) when two of the movable raising members (14_1, 14_2) are pivoted to the non-raised position (A), the piston outer (5b) being held at the medium compression ratio position (M) when only one of the movable raising members (14_1, 14_2) is pivoted to the raised position (B), and the piston outer (5b) being held at the high compression ratio position (H) when two of the movable raising members (14_1, 14_2) are pivoted to the raised position (B).